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## Caregivers' perceptions of literacy toolbox for children in foster care

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CAREGIVERS' PERCEPTIONS OF LITERACY TOOLBOX  
FOR CHILDREN IN FOSTER CARE

A Thesis Submitted  
in Partial Fulfillment  
of the Requirements for the Designation  
University Honors with Distinction

Raelynn Meade  
University of Northern Iowa  
May 2020

## ACKNOWLEDGMENTS

I would like to thank my advisor, Dr. Lindsey Squires for all of the work that she put into helping me see this project through. I could not have completed it without her support and wisdom.

I would also like to acknowledge Derek Kimball, president of Cedar Valley Angels for his contribution to the recruitment of participants, as well as his input in the initial development of the project.

Finally, this project was funded through the Nadyne Harris Scholarship for Honors Research through the University of Northern Iowa's Honors Program.

This Study by: Raelynn Meade

Entitled: Caregivers' Perceptions of literacy toolbox for children in foster care

has been approved as meeting the thesis or project requirement for the Designation

University Honors with Distinction or University Honors (select appropriate designation)

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Date

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Lindsey Squires, Honors Thesis Advisor

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Date

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Dr. Jessica Moon, Director, University Honors Program

### **Caregivers' perceptions of literacy toolbox for children in foster care**

At any given time, there are about 443,000 children in foster care system in the United States (Morton, 2015). When children reside in a home that lacks temporary stability or safety, foster care is a family-supported service to ensure children are placed in safe and stable homes (U.S. Department of Health and Human Services, n.d.). At no fault to their caregivers, 35% to 73% of children in the foster care system experience language delays. This occurrence is significantly higher than the 6% to 15% seen in children who are not raised in foster care (Krier, Green, & Kruger, 2018; Stock & Fisher, 2006). Additionally, 65% of children in foster care experience seven or more school changes between elementary and high school, and as such, these children may easily fall through the cracks and have limited access to services like speech language pathology (Morton, 2015). Supportive services can potentially ameliorate children's vocabulary development (Zuckerman & Khandekar, 2010). This project aims to put literacy tools in the hands of the foster caregiver, and support caregivers in gaining confidence in their ability to support the children they are caring for to develop language and literacy skills. Additionally, this project focuses on obtaining foster caregivers' perceptions of a literacy toolbox in order to develop a high-quality literacy support for caregivers serving children in foster care.

### **Literature Review**

#### *Language Delays and Their Impact*

A language delay occurs when a child is developing language in a typical manner, but at a later chronological age than is typically expected (Speech and Hearing BC, 2014). Conti-Ramsden and Durkin (2012) discussed the negative implications of language delays on children's ability to develop literacy skills and memory skills, as well as increasing their vulnerability to academic failure, behavioral and emotional difficulties, and bullying. Many other

studies have come to a similar conclusion; language delays are correlated with lower social competence and difficulties with literacy and school performance (Krier et al., 2018; McCabe & Meller, 2004; Pears, Heywood, Kim, & Fisher, 2011; Stock & Fisher, 2006). Many children who have language delays eventually catch up to their same-age peers, but around 50% of them will later be identified as having Specific Language Impairment (SLI) (Krier et al., 2018). These social and academic effects of SLI can have a detrimental impact on children's school and relationship-building experiences (Krier et al., 2018).

### *Language Delays in Children in Foster Care*

To date, 35% to 73% of children raised in foster care develop language delays, which is significantly higher than the 6%-15% seen in the general population (Krier et al., 2018; Stock & Fisher, 2006). This finding results from a variety of factors, including environmental influences, experiences prior to entering foster care, and frequency of children's placement changes after entering the system. Additionally, maternal health and other genetic factors may contribute to the child's development, prior to birth (Krier et al., 2018).

One environmental factor that contributes to risk of language delay is socioeconomic status (SES). Hart and Risley (1995) recorded and analyzed the verbal interactions in 42 different households over the course of three years, and compared the language samples between three different SES groups (low SES home, working class home, and professional home). While Hart and Risley's participants were not in foster care, they found that by age four, a child from a low SES home could have heard 32 million words fewer than a classmate from a professional family. Additionally, the words these children were hearing were less complex and less grammatically diverse than the language input received by children from families in a higher SES (Hart &

Risley, 1995). Other studies have found similar results, showing a correlation between low SES and language delays (Hoff, 2013).

Another factor that can contribute to language delays in children who are raised in foster care is a history of abuse and neglect. Children who experience abuse or neglect are more likely to have a language delay than children who do not have these childhood experiences (Krier et al., 2018; Stock & Fisher, 2006). A study conducted by Sylvestre and Mérette (2010) found that 35.3% of children in their sample of abused and neglected children had a language delay, compared to the 13.5% seen in the population as a whole. The stress caused by maltreatment inhibits children's learning and growth. In addition, children who are neglected by their parents do not receive the same rich language input that other children may receive naturally because they are often left alone.

Not only are children in foster care at a disadvantage by having an increased risk of developing a language delay, but they are also less likely to receive services to alleviate the effects of these delays (Conti-Ramsden & Durkin, 2012; Stock & Fisher, 2006). Most children in foster care do not receive services until they reach school age, and once they reach school age, it is sometimes difficult for teachers and parents to identify the language delays (Krier et al., 2018). Two-thirds of children in foster care change schools at least seven times throughout their K-12 education, making it difficult for educators to have enough exposure to the child to notice their delays (Morton, 2015). Additionally, other delays or disabilities may take up more of the caregiver's attention and prevent them from reaching out for language therapy services. It is clear that many different factors contribute to the increased incidence of language delays in children who are raised in foster care, including environmental factors, family history, and a lack of access to resources.

*Potential Interventions for Children At-Risk for Language Delay*

Caregiver-directed interventions may be one way to begin to ameliorate the language gaps for children in foster care. Raby, Freedman, Yarger, Lind, and Dozier (2019) examined the effectiveness of Attachment and Biobehavioral Catch-up for Toddlers (ABC-T) in improving receptive language skills of children in foster care. The study included 88 children and their foster families, who were randomly assigned to receive either the ABC-T treatment or a control intervention. Both approaches involved 10 one-hour training sessions with foster parents on how to administer the treatment. The ABC-T treatment trains parents to increase their nurturance in response to the child's distress. Parents were trained to help children regulate their emotions when they are feeling overwhelmed, and "parent coaches" sent by the researchers provided feedback to parents to help them link their behavior to the intervention's targets. Parent interactions were recorded and scored for sensitivity, and feedback was given to the parents. Raby et al. (2019) found that training foster parents to increase their sensitivity using ABC-T was effective in indirectly increasing receptive vocabulary skills in children whose foster parents did not receive the treatment. Strategies found in ABC-T, such as promoting parental nurturing during play, could be beneficial to consider when constructing the language development toolboxes for this study.

Reach Out and Read (ROR) is a program developed by pediatricians that aims to put books into the hands of families placed at-risk for literacy difficulties, and train parents on how to interact with books and their child (Zuckerman & Khandekar, 2010). The program utilizes books that are developmentally and culturally appropriate for the child, as well as visually appealing. When the pediatrician gives the book to the family, they emphasize to the parents the benefits that reading aloud to their child has on the child's brain development, specifically in the



area of language (Zuckerman & Khandekar, 2010). The physicians also train the parents for thirty seconds to two minutes in dialogic or interactive reading skills to implement while reading with their child. These interactive reading strategies guide parents to use skills such as asking questions, letting the child ask questions, and providing feedback to the child as you read together (Zuckerman & Khandekar, 2010). Zuckerman and Khandekar (2010) found that providing the tools and skills to these parents increased their enjoyment of book reading and improved the children's scores on tests of expressive and receptive language vocabulary. Providing parents with appropriate books and brief training (2 minutes or less) can help children placed at risk to develop language skills. These literacy practices will be an integral part of the development of the language development toolboxes used in this study.

McLeod, Hardy, and Kaiser (2017) conducted a study that aimed to determine the effectiveness of Enhanced Milieu Teaching (EMT) techniques paired with book readings on vocabulary acquisition in preschool students who were at risk for language delays. This study included two preschool-aged males whose teachers were trained in EMT for the purpose of the study. EMT is a strategy that supports language development by following the child's lead in play and naturally bringing up target words through the play. During the intervention, teachers performed 10 minutes of book reading followed by 10 minutes of EMT using the same set of specified vocabulary words. The teachers completed two sessions daily, five days a week for 10 weeks. McLeod, Hardy, and Kaiser (2017) found that these interventions were effective in teaching children target vocabulary words. EMT is another strategy that may be appropriate to include in the language development toolbox for this study.

The lack of resources that children in foster care may have may result in decreases in their exposure to play. Play is an important building block for cognitive functioning because it

helps children begin to develop representational concepts. Play is a building block for language, because language itself is sounds or letters representing objects or ideas. Nicolopoulou et al. (2015) found that, when implemented in a preschool classroom, storytelling and story-acting practice led to an increase in narrative comprehension, print and word awareness, pretend abilities, self-regulation, and reduced play disruption. Allowing children to hear a story and then act it out may help develop language and literacy skills in children, but they must have access to the books and toys necessary to do so. As such, providing families with a book and themed materials to interact with the text may be beneficial to support language growth.

While some researchers may pair instruction with literacy materials, other investigations specifically examine the impact of access to literacy materials. Children in poverty many times have less access to books. For example, Dolly Parton's *Imagination Library* is a program that sends developmentally-appropriate books to children once per month between birth and five years of age both across the United States and internationally. This program has been shown to increase the amount of time a family spends reading, increase interest in reading in children, increased cognitive development, and improved early literacy skills (Anderson, Atkinson, Swaggerty, & O'Brien, 2019). Anderson et al. (2019) showed that access to the materials without any interventions in place can be effective in promoting language and literacy skills in children. While past research has studied the effectiveness of specific interventions such as dialogic book reading, ABC-T training, and play-based intervention, none have provided foster care families with a simple "toolbox" of materials to use with the children in their care. This study puts into practice the idea that simply having access to literacy materials can improve language and literacy outcomes in children.

### **Research Questions**

The present study aims to determine what foster caregivers' perceptions are of a language development toolbox for children in foster care (e.g., is it helpful? what would be more beneficial?). While previous studies include extensive training and/or researcher-implemented intervention with children, the present study investigated caregivers' perceptions of materials as a preliminary step to developing materials that may be used in caregiver-child play interactions. It was anticipated that there would be specific attributes of the toolbox that would be most helpful (e.g., simple repetitive books). As such, the purpose of this exploratory study was to empower foster parents to encourage children's development of strong language skills, as well as obtain their perceptions of the effectiveness of the activities for their individual child. The primary research questions were:

- 1) Prior to receiving a language development toolbox, what are foster caregivers' perceptions and preferences of facilitative and age-appropriate materials for their foster child?
- 2) After receiving a language development toolbox, what are foster caregivers' perceptions and preferences of the materials?

### **Method**

#### **Participants**

Two participants were involved in the study. All participants were required to be a current foster caregiver of at least one child in the foster care system, and the child they are caring for must range from birth to eight years old. Participant 1 was providing foster care to one child, aged three years old. Participant 2 was providing foster care to two children, ages six months and 8 years. To recruit participants, the researcher partnered with Cedar Valley Angels, a

local organization that specializes in providing support to families providing foster care in the local area. The president of Cedar Valley Angels sent out an email to caregivers of children in foster care in the Cedar Valley asking for participants in the study. In the email, caregivers were asked to fill out a brief survey stating that they were interested in participating, they were currently providing foster care to a child between the ages of birth and eight years old, and providing their email address and phone number.

### **Research Design**

This project utilized a qualitative design; participants engaged in semi-structured interviews with a few quantitative elements embedded (e.g., completing Likert scale ratings). All data was collected through these semi-structured interviews with caregivers of children in foster care.

### **Interview & Material Distribution Procedure**

After the University of Northern Iowa's IRB approval was obtained, a recruitment email was sent to families in the Cedar Valley who provide foster care by the president of Cedar Valley Angels. Interested participants were contacted by the researcher, who scheduled an initial interview.

Participants were interviewed before and after receiving literacy toolboxes. The pre-interview script used is included in Appendix A, and the post-interview script used is included in Appendix B. The pre-interview questions were piloted with someone who has a background in early childhood education in order to ensure that they are not offensive to those with background knowledge in the area. It was determined by this individual that the questions were appropriate. All interviews took place over the phone. Participants signed a letter of consent prior to the beginning of the interview, which was emailed to the researcher. Both participants consented to

being recorded, so all interviews were recorded using a handheld recording device to maintain accuracy.

Once the pre-interviews were conducted, the researcher began developing and assembling the language development toolboxes. Toolbox activities were developed using evidence-based practices (e.g., Tsybina & Eriks-Brophy, 2010), as well as foster parent recommendations. Both participants opted for the researcher to deliver the boxes to their homes. Because of concerns with COVID-19 at the time, the researcher wore a mask and gloves while assembling and delivering the boxes and made no contact with the participants at any point during delivery. Participants were given one to two weeks to use the language development toolboxes at their leisure, and then participated in a post-interview. The post-interviews were also conducted over the phone and recorded by the researcher.

## **Materials**

Three language development toolboxes were developed (2 children staying with one family, 1 child staying in another family). Each toolbox was specialized for the age and preferences of the identified child. Materials included in this project included age-appropriate books (e.g., Tsybina-Eriks-Brophy, 2010), age-appropriate toys (e.g., puzzles), and instructional materials on how to encourage language development. Developmental milestones that are typical for the age group of each child were included with the materials as well. The specific materials included in the boxes were as follows:

### **6 month old:**

- Plastic tub with lid
- *Goodnight Moon* book
- *Baby Touch and Feel Animals* book

- *The Very Hungry Caterpillar* book
- *Shake, Look, Touch* sensory book
- Fisher Price stacking rings
- Fisher Price block sorting box
- Blanket
- Farm animal bath toys
- Milestone and activity list, provided in Appendix C

**3 year old:**

- Plastic tub with lid
- *Open the Barn Door* book
- *Brown Bear, Brown Bear, What Do You See?* Book
- Alphabet felt book
- Farm animal hand puppets
- Wooden farm set
- Bubbles
- Lego Duplo number train set
- Alphabet puzzle cards
- Felt lacing numbers
- Milestone and activity list, provided in Appendix D

**8 year old:**

- Plastic tub with lid

- *Magic Tree House: Merlin Missions* book set (books 1-4)
- *Captain Underpants* comic book
- *Super Narwhal and Jelly Jolt* book
- Notebook and pens
- Bananagrams game
- “Spot It” game
- Lego dinosaur set
- Dinosaur play set
- Milestone and activity list, provided in Appendix E

To conduct the interviews, a handheld recording device was used. As an incentive to participants, families were provided with the above described toolkit and \$10 gift cards to Target. A \$300 scholarship from the Nadyne Scholarship for Honors Research was used to purchase the toolbox materials, as well as the Target gift cards.

### **Data analysis**

In order to analyze the data, recorded interviews were transcribed verbatim. Then, transcriptions were analyzed for patterns (Creswell & Miller, 2000). Units of data were identified and given codes similar to categorical variables (e.g., instructional materials were helpful vs. unhelpful, toys were essential vs. unnecessary). From the coded data, findings emerged to identify a conclusion on what caregivers found helpful. The findings produced a compilation of foster parent perceptions and preferences of facilitative and age-appropriate materials for the children in their care, as well as their perceptions of the language development toolboxes after interacting with the materials.

## Results

### **Question 1: Prior to receiving a language development toolbox, what are foster caregivers' perceptions and preferences of facilitative and age-appropriate materials for their foster child?**

The data collected from the pre-interviews is summarized in Table 1 and Table 2. The two participants reported varying levels of experience working with children and encouraging language development, but both participants expressed placing a high value on education and literacy development. When asked to state their comfort level with supporting language development in children, Participant 1 reported 7 out of 10, Participant 2 reported 10 out of 10 (average 8.5). During the first interview, Participant 1 expressed concerns regarding the language development of the child in her care, while Participant 2 did not. Both participants stated that they were not aware of organizations in the area who provide free books and toys to children who are in foster care. Participant 1 and Participant 2 both expressed that a combination of both materials and activity ideas would be helpful to include in the literacy boxes, and made similar remarks about not having a lot of time to look over materials so they would prefer brief written instructions of the activities.

### **Question 2: After receiving a language development toolbox, what are foster caregivers' perceptions and preferences of the materials?**

The data collected from the post-interviews is summarized in Table 3 and Table 4. When asked to rate on a scale of one to ten how much they enjoyed using the language toolboxes, the average of the participants' answers was 9 (Participant 1 = 8, Participant 2 = 10). When asked to rate on a scale of one to ten how much the children enjoyed using the language toolboxes, Participant 1 reported that the child enjoyed using the toolboxes so much she would rate it a



12/10, and Participant 2 reported 10/10. Despite receiving different materials in each box, both participants stated that the books were one of the most beneficial elements in the boxes.

Participant 1 noted that the dialogic book reading strategies included on the activity sheet were especially helpful in encouraging interaction during shared book reading. She stated, *"I do some prompting while we read, but I'm like, 'oh I didn't think about having them finish the story,' so that was helpful."* Toys in the toolbox that related to the theme of the books (e.g., farm animals) were regarded by both participants as especially helpful. Participant 2 commented, *"[my 6-month-old] loved the peek-a-boo with the blanket, she loved that. That was perfect."* Both participants stated that the materials included were developmentally appropriate; however, it is important to note that Participant 1 commented on the importance of adapting materials for children who have experienced trauma when she stated, *"With some things developmentally they're just not there. They should be there, but you know kids from trauma they tend to be more so..like my three year old is more like a one and a half to two year old. So some stuff that would be good for a typical three year old is not good for a three year old with trauma."* Participant 1 also expressed interest in adding a small booklet of sight words and pictures in future language development toolboxes to help foster caregivers target specific sounds with the child they are caring for as well as developing literacy skills.

**Table 1***Participant One: Pre-Interview Summary*

Pre-Interview Summary - Participant 1	
Pre-Interview Question	Responses
What are your experiences with young children and their learning?	<ul style="list-style-type: none"> <li>• Has five children ranging from 21-31 years old.</li> <li>• Currently provides foster care for up to five kids at a time.</li> <li>• AA in early education</li> <li>• Provided daycare services for 20 years</li> </ul>
How would you rate your comfort level on a scale of 1-10 in supporting your foster child's language development?	<ul style="list-style-type: none"> <li>• 7</li> </ul>
Have you had any concerns for children you have fostered in the past or are currently fostering regarding language development? If so, please explain.	<ul style="list-style-type: none"> <li>• Yes. Has had concerns for 3-5 children who have attended weekly speech therapy.</li> <li>• Every sibling in a group of five had to see an SLP.</li> <li>• Current concerns for the three year-old in her care. The child only pronounces half of the word.</li> </ul>
Have you been offered free books or toys from any other organizations?	<ul style="list-style-type: none"> <li>• No, not that she knows of.</li> </ul>
For a language development toolbox, would you be more interested in actual materials (e.g., puzzles, books, toys) or more specific strategies on how to support language development for children at risk?	<ul style="list-style-type: none"> <li>• A combination</li> </ul>
As an adult learner, what are your preferences for receiving educational tools?	<ul style="list-style-type: none"> <li>• Prefers written materials</li> </ul>

**Table 2***Participant 2: Pre-Interview Summary of Responses*

Pre-Interview Summary - Participant 2	
Pre-Interview Questions	Responses
What are your experiences with young children and their learning?	<ul style="list-style-type: none"> <li>• Currently cares for a 6 month old, a 2 year old, an 8 year old, and a 13 year old.</li> <li>• New to foster care, but loves it.</li> </ul>
How would you rate your comfort level on a scale of 1-10 in supporting your foster child's language development?	<ul style="list-style-type: none"> <li>• 10</li> <li>• Has a child who excels in reading and gets good grades.</li> <li>• Thinks that developing language and reading skills is very important.</li> </ul>
Have you had any concerns for children you have fostered in the past or are currently fostering regarding language development? If so, please explain.	<ul style="list-style-type: none"> <li>• No</li> </ul>
Have you been offered free books or toys from any other organizations?	<ul style="list-style-type: none"> <li>• Occasionally utilizes Kaden's closet for beds, strollers, clothes, etc.</li> <li>• Cedar Valley Angels provides toys</li> </ul>
For a language development toolbox, would you be more interested in actual materials (e.g., puzzles, books, toys) or more specific strategies on how to support language development for children at risk?	<ul style="list-style-type: none"> <li>• A combination</li> </ul>
As an adult learner, what are your preferences for receiving educational tools?	<ul style="list-style-type: none"> <li>• Documents, visuals, videos, etc.</li> </ul>

**Table 3***Participant 1: Post-Interview Response Summary*

Post-Interview Summary - Participant 1	
On a scale of 1-10, how much did you enjoy using the language development toolbox?	<ul style="list-style-type: none"> <li>● 8</li> <li>● There was a lot in there that was very good for teaching letter sounds, helping pronounce words, etc.</li> </ul>
On a scale of 1-10, how much did the child you are providing foster care for appear to enjoy using the language development toolbox?	<ul style="list-style-type: none"> <li>● 12/10.</li> <li>● She loved everything and could not wait to “destroy it.”</li> </ul>
Which materials included in the language development toolbox were the most helpful?	<ul style="list-style-type: none"> <li>● Puppets</li> <li>● Books</li> <li>● Sheets with activities were helpful, especially dialogic book reading strategies</li> </ul>
Which materials included in the language development toolbox were the least helpful?	<ul style="list-style-type: none"> <li>● Lacing activity was too difficult</li> <li>● Children with trauma are often delayed, so this three year old is developmentally closer to a 1 ½ - 2 year old.</li> </ul>
Was there anything included in the toolboxes that was unclear or difficult to use?	<ul style="list-style-type: none"> <li>● No</li> </ul>
Did the activities included in the toolbox appear to be age-appropriate for the child you are caring for?	<ul style="list-style-type: none"> <li>● Everything except for lacing</li> <li>● Some items were just above her level of development, so it pushed her to focus and try new things</li> </ul>
Is there anything you wish would have been included in the toolbox?	<ul style="list-style-type: none"> <li>● Little paper booklets with sight words such as “ball,” “call,” etc. that attempt to get the child to use certain sounds.</li> <li>● Booklet that teaches them the letter sounds with a picture and a word.</li> </ul>

**Table 4***Participant 2: Post-Interview Response Summary*

Post-Interview Summary - Participant 2	
On a scale of 1-10, how much did you enjoy using the language development toolbox?	<ul style="list-style-type: none"> <li>• 10</li> </ul>
On a scale of 1-10, how much did the child you are providing foster care for appear to enjoy using the language development toolbox?	<ul style="list-style-type: none"> <li>• 10</li> <li>• 8 year old loved the books and the legos. He loves to read, and was ecstatic about receiving chapter books</li> <li>• 6 month old loved the peek-a-boo activity with the blanket</li> </ul>
Which materials included in the language development toolbox were the most helpful?	<ul style="list-style-type: none"> <li>• 8 year old: The books and the legos</li> <li>• Chapter books boosted his ego</li> <li>• 6 month old: blanket and blocks</li> </ul>
Which materials included in the language development toolbox were the least helpful?	<ul style="list-style-type: none"> <li>• None</li> </ul>
Was there anything included in the toolboxes that was unclear or difficult to use?	<ul style="list-style-type: none"> <li>• No</li> </ul>
Did the activities included in the toolbox appear to be age-appropriate for the child you are caring for?	<ul style="list-style-type: none"> <li>• Yes</li> <li>• At first she was not sure about the blocks for the six month-old, but her head start teacher explained that she should allow the child to try picking up and moving the blocks, without too much concern for whether they were placing the shapes correctly.</li> </ul>
Is there anything you wish would have been included in the toolbox?	<ul style="list-style-type: none"> <li>• No</li> <li>• Though there were plenty of teaching materials, and everything provided was “perfect”.</li> </ul>

### **Discussion**

The purpose of this exploratory study was to gather information from foster parents to guide the creation of language and literacy toolboxes. Then, after families had one to two weeks with materials, post-interviews were used to gather feedback. Three primary findings resulted from the present study from the post-material interviews. These topics related to positive feedback, participants, and multidisciplinary care.

While both participants expressed that all of the materials provided were helpful and appropriate, the majority of their positive comments were in regards to the books and related toys. Having access to books at a higher reading level increased the level of confidence seen in the 8-year old child by Participant 2. Participant 1 expressed increased confidence in participating in meaningful interactions during book reading because of the strategies provided on the activity sheet. Speech language pathologists may find that simple “toolboxes” could include a combination of books, toys, games, and activity ideas, with specific age children in mind (e.g., 8-year old and dinosaurs). Additionally, handouts should be kept at or under one page and organized by materials may benefit, as both participants expressed limited free time. Overall, the feedback was positive.

Secondly, participant involvement was a key factor. Both participants involved in the present study were highly motivated and willing to promote language development in the children they are caring for, and had at least some experience working with children. These two factors (high motivation, highly trained) may have related to the success of foster parents' ability to maximize use of language and literacy materials. Additionally, this study took place during the 2020 global pandemic, during which children are not in school and many adults have either lost

their jobs or are working from home. Due to these unusual circumstances, a greater amount of time than is typical was likely spent using the materials in the toolboxes.

Third, multi-disciplinary support may relate to family's access to services and use of language and literacy materials. During the interviews, Participant 1 noted a concern regarding speech sound production in the three-year-old child, as well as difficulty using fine motor skills during the lacing activity. This anecdote may relate for the need to provide additional screenings to foster care families, in order to identify communication disorders in a vulnerable population (Krier et al., 2018). Participant 2 commented that she was not sure how to use a set of toys with the six-month old child; however, the foster parent received advice from the child's Head Start Program teacher regarding different ways to play. In the future, it may be helpful to include contact information for other resources in the area such as Speech Pathologists, Occupational Therapists, or Head Start Programs if concerns arise during the use of these language development materials, or perhaps to have different professionals review or rate materials for their use with young children from vulnerable populations.

Given these preliminary findings, the results clearly showed that caregivers had positive perceptions of the developed language development toolbox. As such, similar toolboxes could be constructed and distributed to other children who are at a higher risk for language disorders. Long term, providing these resources to foster parents could mitigate the effects of a child's environment on their language development. Additionally, meeting with each individual family prior to the assembly of the boxes would help ensure that the language development toolboxes are as effective as possible for the individuals who will be using them were this study to be continued in the future.

**Future study and limitations**

As the present study was exploratory in nature, there is a foundation for future study, as well as room to address limitations. Future studies could analyze video of the children and foster parents using the toys; however, given the confidentiality restrictions, this may not be feasible. Future study may benefit on recording the 'time-on-task' to begin to consider the 'dosage' or intensity of the intervention. As for participants, future work could involve more diversity, such as individuals who do not have a background in child development or a history of working with young children, similar to the Reach out and Read program (Zuckerman & Khandekar, 2010). It would also be helpful to conduct this study during a time when most U.S. Americans are adhering to a more typical daily schedule to determine whether foster caregivers will realistically have enough time in their schedules to use the materials.

Because of the small sample size, a large portion of the budget for the present study was able to be spent on each language development box (approximately \$75 per box). This study may be unrealistic to replicate with larger sample sizes without further grant funding support. Perhaps future studies could reduce the toolbox cost by using gently used books or hosting a book/toy drive to collect donations. For the continuation of this project to reach more children, future toolboxes may include two to three books, a toy related to the theme of the books, and a list of shared book reading strategies may be the most effective use of resources.

**Conclusion**

In summary, the present study examined two foster mothers' perspectives of literacy toolkits and the support offered from materials provided. The primary take-aways from this



investigation suggest that foster parent perceptions of the language development toolboxes were positive, and that materials such as books, and toys that related to the theme of the books (e.g., farm animals), were particularly helpful resources. Both participants also reported that the list of language and literacy activities was a beneficial element of the toolboxes. Given that children from foster care are vulnerable to language and literacy difficulties (Krier et al., 2018; Stock & Fisher, 2006), foster parent guided literacy kits may be one method to support early language and literacy development. Particularly given time periods of social isolation (e.g., COVID-19), resource kits offer families guided supports to provide rich language opportunities for young children. Putting these tools in the hands of foster caregivers and equipping them with the knowledge and resources to use them effectively can help foster parents provide the best possible environment for the children in their care's development. Speech language pathologists may be one of the many caring individuals to support children in foster care.

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APPENDIX A  
Pre-Interview Script

*“I would like to prepare a language development toolbox for families who care for foster children. This toolbox will contain age appropriate toys and/or books that a family can use with their foster children. I am interviewing you now beforehand so I can get input on what would be helpful for your family’s needs. I have a few questions:*

- What are your experiences with young children and their learning?
  - e.g., Do you have older children? Do you have any prior education in early childhood development?
- How would you rate your comfort level on a scale of 1-10 in supporting your foster child’s language development?
- Have you had any concerns for children you have fostered in the past or are currently fostering regarding language development? If so, please explain.
- Have you been offered free books or toys from any other organizations?
- For a language development toolbox, would you be more interested in actual materials (e.g., puzzles, books, toys) or more specific strategies on how to support language development for children at risk?
- As an adult learner, what are your preferences for receiving educational tools?
  - e.g., documents, visuals, videos, etc.
- For a toolbox would you be more interested in actual materials (e.g., puzzle, books, toys) or more specific strategies on how to support language development for children at risk/with identified language problems or both?

## APPENDIX B

## Post-Interview Script

Now that you and the child you are providing foster care for have had some time to interact with the language development toolbox, I would like to gather some information from you about what was helpful or not helpful in this process so that we can improve it for future use.

- On a scale of 1-10, how much did you enjoy using the language development toolbox?
- On a scale of 1-10, how much did the child you are providing foster care for appear to enjoy using the language development toolbox?
- Which materials included in the language development toolbox were the most helpful?
- Which materials included in the language development toolbox were the least helpful?
- Was there anything included in the toolbox that was unclear or difficult to use?
- Did the activities included in the toolbox appear to be age-appropriate for the child you are caring for?
- Is there anything you wish would have been included in the toolbox?

## APPENDIX C

## 6 Month Milestones

### **What Most Babies Do by this Age:**

#### **Social/Emotional**

- ☐ Knows familiar faces and begins to know if someone is a stranger
- ☐ Likes to play with others, especially parents
- ☐ Responds to other people's emotions and often seems happy
- ☐ Likes to look at self in a mirror

#### **Language/Communication**

- ☐ Responds to sounds by making sounds
- ☐ Strings vowels together when babbling ("ah," "eh," "oh") and likes taking turns with parent while making sounds
- ☐ Responds to own name
- ☐ Makes sounds to show joy and displeasure
- ☐ Begins to say consonant sounds (jabbering with "m," "b")

#### **Cognitive (learning, thinking, problem-solving)**

- ☐ Looks around at things nearby
- ☐ Brings things to mouth
- ☐ Shows curiosity about things and tries to get things that are out of reach
- ☐ Begins to pass things from one hand to the other

#### **Movement/Physical Development**

- ☐ Rolls over in both directions (front to back, back to front)
- ☐ Begins to sit without support
- ☐ When standing, supports weight on legs and might bounce
- ☐ Rocks back and forth, sometimes crawling backward before moving forward

## **Activity Ideas for 6 Month Olds**

- *Book Reading:*
  - While reading a book, point out objects, colors, animals, etc. By 7-10 months old, your baby should be able to point to pictures in books (Schickendanz, 1999).
  - Encourage your baby to touch the book, turn the pages, and make sure you name the things they point to.
  - With the sensory book, use describing words such as "soft", "crunchy", "shiny", "bumpy", "smooth", etc.
- *Blanket:*
  - Hide a toy under the blanket and let your baby find it.
  - Play peek-a-boo
- *Stackable rings and block set:*
  - Narrate what they are doing in short sentences
  - Tell them what color and shape they are holding
  - Use words such as, "in," "out," "up," and "down".
- *Animal toys*
  - Make animal sounds
  - Narrate what you are doing with the animals
  - Point out colors, animal names, etc.
- *Narrate your actions-* throughout the day, describe what you are doing and seeing in the environment to your baby. This will teach them vocabulary words and lay a foundation for understanding how language works (Lewis, 2019).

Lewis, K. N. (Ed.). (2019, August). Reading Books to Babies (for Parents) - Nemours KidsHealth. Retrieved from <https://kidshealth.org/en/parents/reading-babies.html>

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## APPENDIX D

## 3 Year Old Milestones

### **What Most Children Do by this Age:**

#### **Social/Emotional**

- ☐ Copies adults and friends
- ☐ Shows affection for friends without prompting
- ☐ Takes turns in games
- ☐ Shows concern for a crying friend
- ☐ Understands the idea of “mine” and “his” or “hers”
- ☐ Shows a wide range of emotions
- ☐ Separates easily from mom and dad
- ☐ May get upset with major changes in routine
- ☐ Dresses and undresses self

#### **Language/Communication**

- ☐ Follows instructions with 2 or 3 steps
- ☐ Can name most familiar things
- ☐ Understands words like “in,” “on,” and “under”
- ☐ Says first name, age, and sex
- ☐ Names a friend
- ☐ Says words like “I,” “me,” “we,” and “you” and some plurals (cars, dogs, cats)
- ☐ Talks well enough for strangers to understand most of the time
- ☐ Carries on a conversation using 2 to 3 sentences

#### **Cognitive (learning, thinking, problem-solving)**

- ☐ Can work toys with buttons, levers, and moving parts
- ☐ Plays make-believe with dolls, animals, and people
- ☐ Does puzzles with 3 or 4 pieces
- ☐ Understands what “two” means
- ☐ Copies a circle with pencil or crayon
- ☐ Turns book pages one at a time
- ☐ Builds towers of more than 6 blocks
- ☐ Screws and unscrews jar lids or turns door handle



### **Activity Ideas for a 3-year old**

- *Book Reading-* While reading one of the books with your child, try some of these strategies (CROWD) (retrieved from iowareadingresearch.org):
  - **Completion prompts:** leave a blank at the end of your sentence and let the child fill it in.
  - **Recall prompts:** ask questions about what has already happened in the book
  - **Open-ended prompts:** ask an open-ended question about the pictures
  - **Wh-prompts:** ask who, what, when, where, and why questions
  - **Distancing prompts:** ask the child to relate the content to experiences in the real world (e.g., have you ever ...?)
  - **Point** to colors and shapes when applicable, and ask the child to name them
  - **Repeat** new vocabulary words often
  - **Act it out!** Once you have read a book, find ways to incorporate some vocabulary in the book into play. This also develops their ability to recall what was read by acting it out afterwards.
- *Puppets:*
  - Act out the story from *Open the Barn Door*, or make up your own story
  - Encourage your child to make the animals talk to each other
- *Bubbles:*
  - Use vocabulary words such as:
 

▪ Pop	▪ Few
▪ High	▪ Blow
▪ Low	▪ Bubble
▪ Many	▪ Round
- *Duplo Blocks:*
  - Practice number and color vocabulary
  - Practice multi-step directions such as, "Put three blocks on the train and drive it to the wall."
  - Learn directional words such as, "Put the cat on top of the green block."
- *Felt alphabet book, felt numbers, and puzzle cards:*
  - Help the child identify the first letter in their name
  - Sort the letters or numbers by color
  - Help your child differentiate letters from numbers
  - Scatter the numbers around the room and ask the child to go find a particular number or color
  - Ask the child to name the objects on the alphabet cards. Expand the length of their sentence by adding, "That is a \_\_\_\_."

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<https://iowareadingresearch.org/dialogic-reading-part-2>

## APPENDIX E

**By 8 years old, a child should:**

- Have well-developed speech and use correct grammar most of the time.
- Be able to read
- Made predictions, justify decision, provide solutions, and give explanations
- Use language at a higher level to make jokes, tease, argue a point of view, or summarize books and movies
- Write descriptive paragraphs and stories
- Retell both imaginary and real events

Admin, K. S. W. (2016, October 27). Stages of Language Development Checklist. Retrieved from <https://childdevelopment.com.au/resources/child-development-charts/stages-of-language-development-checklist/>

**Activity Ideas:**

- *Books, notebooks, pen:*
  - Have your child read by themselves, or read a book with them
  - Ask your child what happened in the previous chapter, and what they think will happen next. Ask them to explain their reasoning.
  - Have your child journal about their day, their experiences, or write a made-up story
- *Lego Dinosaur set:*
  - Ask your child what they are doing, how they knew what to do, which dinosaur they will make and why, etc.
- *Bananagrams:*
  - Play according to the directions to work on spelling skills
  - Have the child make up a short poem with some words on the board
  - Make up a silly sentence with words on the board

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